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(54) Title: METHOD AND APPARATUS FOR DETECTING PREDETERMINED MOLECULAR STRUCTURES IN A SAMPLE

(57) Abstract

A predetermined molecular structure in a sample is detected by sensing a pattern in which the sample binds to an array of binding A predetermined molecular structure in a sample to detected by sensing a pattern in which the sample tonds to an array of binding site is a molecular detection device (20), and comparing the pattern to a reference pattern to detect the predetermined molecular structure in the sample (22). In one embodiment, the reference steem is generated by sensing a pattern in which a reference sample containing the predetermined molecular structure bladt to a low array of binding sites. In another embodiment, the reference pattern is generated by predicting a pattern in which the predetermined molecular structure binds to the array of binding sites.